Amendments to the Claims:

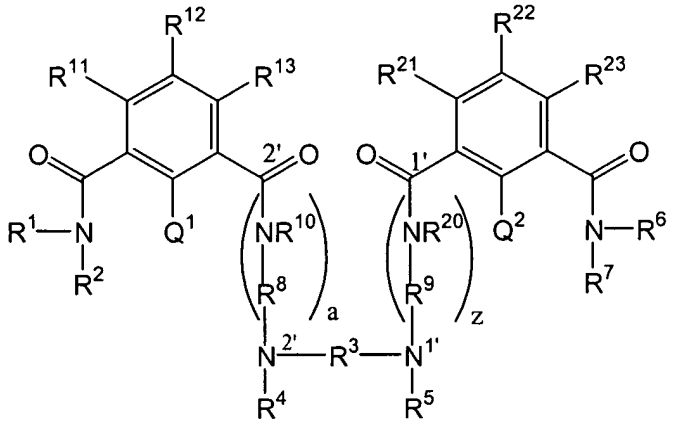
This listing of claims will replace all prior versions, and listings, of claims in the application.

Please amend claims 8, 15, 16 and 18. Please cancel claims 17, 34 and 52. Please add claims 124-137.

Listing of Claims:

1-4. (Canceled)

5. (Previously presented) A compound having a structure according to Formula I:



(I)

wherein,

R^1, R^2, R^4, R^5, R^6, R^7, R^{10} and R^{20} are members independently selected from the group consisting of H, alkyl, substituted alkyl, and polyether,

wherein, two or more of R^1, R^2, R^4, R^5, R^6, and R^7 are optionally adjoined by at least one linker moiety to form at least one ring;

R^3, R^8 and R^9 are members independently selected from the group consisting of alkyl, substituted alkyl, aryl, substituted aryl, and polyether;

R^{11}, R^{12}, R^{13}, R^{21}, R^{22} and R^{23} are members independently selected from alkyl, substituted alkyl, H, $—NR^{14}R^{15}$, $—NO_2$, $—OR^{16}$, $—COOR^{17}$,

wherein, R^{14}, R^{15}, R^{16} and R^{17} are members independently selected from the group consisting of H, alkyl and substituted alkyl, wherein R^{12} can

optionally form a ring with R^{11}, R^{13} or both, and R^{22} can optionally form a ring with R^{21}, R^{23} or both, said rings being members independently selected from the group of ring systems consisting of cyclic alkyl, substituted cyclic alkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, and heterocyclyl ring systems; and

Q^1 is —OR^{18};

Q^2 is —OR^{19},

wherein R^{18} and R^{19} are members independently selected from H, an enzymatically labile group, a hydrolytically labile group and a single negative charge;

a is 0 or 1, with the proviso that when a is 0, $N^{2'}$ is covalently attached directly to carbonyl group 2'.

z is 0 or 1, with the proviso that when z is 0, $N^{1'}$ is covalently attached directly to carbonyl group 1'.

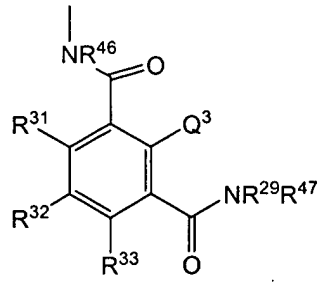
6. (Presently presented) The compound according to claim 5, wherein z is 0.

7. (Original) The compound according to claim 5, wherein R^3 is a linear C_1-C_6 hydrocarbon.

8. (Currently amended) The compound according to claim 6, wherein

R^8 is $(CH_2)_P$;

R^4 is an alkyl group substituted with a moiety having a structure according to Formula II:



(II)

wherein,

R^{29}, R^{46} and R^{47} are members independently selected from the group consisting of H, alkyl, substituted alkyl, and polyether, wherein, two or more of R^2, R^7 and R^{29} are optionally adjoined by at least one linker moiety to form at least one ring;

R^{31}, R^{32} and R^{33} are members independently selected from alkyl, substituted alkyl, H, $—NR^{24}R^{25}$, $—NO_2$, $—OR^{26}$, $—COOR^{27}$,

wherein, R^{24}, R^{25}, R^{26} and R^{27} are members independently selected from the group consisting of H, alkyl and substituted alkyl, wherein R^{32} can optionally form a ring with R^{31}, R^{33} or both, said rings being members independently selected from the group of ring systems consisting of cyclic alkyl, substituted cyclic alkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, and heterocyclyl ring systems;

R^3 is $(CH_2)_X$;

Q^3 is $—OR^{28}$, wherein R^{28} is a member selected from H, an enzymatically labile group, a hydrolytically labile group and a single negative charge;

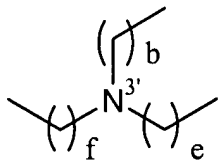
P and X are members independently selected from the group consisting of the integers from 1 to 5, inclusive;

and z is 0.

9. (Canceled)

10. (Canceled)

11. (Previously presented) The compound according to claim 8, wherein R^2, R^6 and R^{29} are adjoined by a single linker moiety, wherein said linker moiety has a structure according to Formula III :

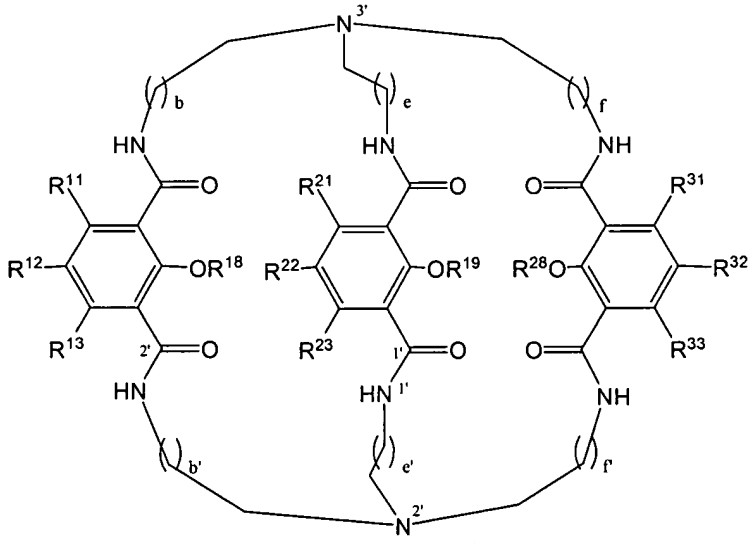


(III)

wherein,

b, e and f are members independently selected from the group consisting of the integers from 1 to 5, inclusive.

12. (Previously presented) A compound according to claim 11, having a structure according to Formula IV:

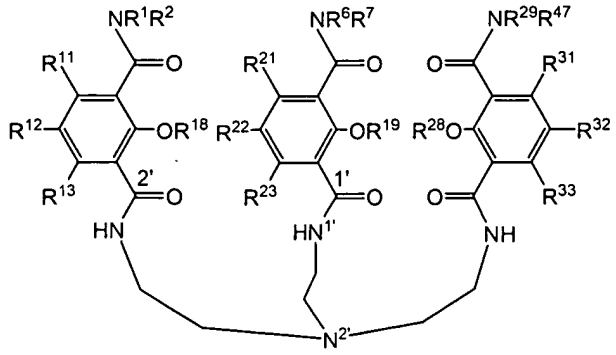


(IV)

wherein,

b, b', e, e', f and f' are members independently selected from the group consisting of the integers from 1 to 5, inclusive.

13. (Previously presented) A compound according to claim 8, having a structure according to Formula V:



(V).

14. (Previously presented) The compound according to claim 12, wherein b, b', e, e', f and f' are 1.

15. (Currently amended) The compound according to claim 8 wherein, R^1, R^2, R^5, R^6, R^7, R^{10}, R^{29}, R^{46} and R^{47} are members independently selected from the group consisting of H, C_1 to C_{10} alkyl and C_1 to C_{10} substituted alkyl~~; and~~

~~R^3 is a member independently selected from the group consisting of C_1 to C_{10} alkyl and C_1 to C_{10} substituted alkyl~~.

16. (Currently amended) The compound according to claim 15 wherein, R^1, R^2, R^5, R^6, R^7, R^{10}, R^{29}, R^{46} and R^{47} are members independently selected from the group consisting of H, C_2 to C_6 alkyl and C_2 to C_6 substituted alkyl~~; and~~

~~R^3 is a member selected from the group consisting of C_2 to C_6 alkyl and C_2 to C_6 substituted alkyl~~.

17. (Canceled).

18. (Currently amended) The compound according to claim 8, wherein R^1, R^2, R^5, R^6, R^7, R^{10}, R^{29}, R^{46} and R^{47} are members independently selected from the group consisting of H and alkyl substituted with polycyclic aryl groups~~; and~~

~~R^3 is an alkyl substituted with polycyclic aryl groups~~.

19. (Previously presented) The compound according to claim 8, wherein a member selected from the group consisting of R^1, R^2, R^5, R^6, R^7, R^{10}, R^{29}, R^{46} and R^{47} and combinations thereof is a primary alkyl amine.

20. (Original) The compound according to claim 19, wherein said primary alkyl amine is a C_1 to C_{10} alkyl chain bearing an amine moiety at the ω-position.

21. (Previously presented) The compound according to claim 20, wherein said primary alkyl amine is a C_2 to C_6 alkyl chain bearing an amine moiety at the ω-position.

22. (Original) The compound according to claim 8, wherein a member selected from the group consisting of R^1, R^2, R^3, R^5, R^6, R^7, R^8, R^9, R^{10}, R^{29}, R^{46} and R^{47} and combinations thereof is a polyether.

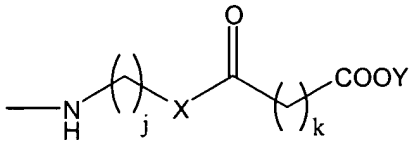
23. (Original) The compound according to claim 22, wherein said polyether is a member selected from ethylene glycol, ethylene glycol oligomers and combinations thereof, wherein said polyether has a molecular weight of from about 60 daltons to about 10,000 daltons.

24. (Original) The compound according to claim 23, wherein said polyether has a molecular weight of from about 100 daltons to about 1,000 daltons.

25. (Previously presented) The compound according to claim 8, wherein a member selected from the group consisting of R^1, R^2, R^3, R^5, R^6, R^7, R^{10}, R^{29}, R^{46} and R^{47} comprise a reactive group for conjugating said compound to a member selected from the group consisting of molecules and surfaces.

26. (Previously presented) The compound according to claim 8, wherein R^1, R^2, ~~R^3~~, R^5, R^6, R^7, R^{10}, R^{29}, R^{46} and R^{47} and combinations thereof are members selected from ω-carboxyl alkyl groups, ω-carboxyl substituted alkyl groups and combinations thereof.

27. (Previously presented) The compound according to claim 26, wherein said ω-carboxyl substituted alkyl group has a structure according to Formula VII:



(VII)

wherein,

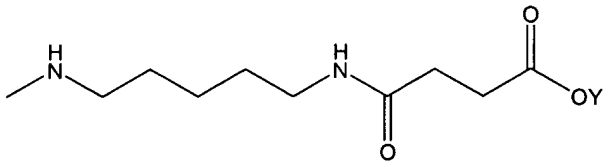
X is a member selected from O, S and NR^{50}, wherein

R^{50} is a member selected from H, alkyl and substituted alkyl;

Y is a member selected from H and a single negative charge; and

j and k are members independently selected from the group consisting of integers from 1 to 18.

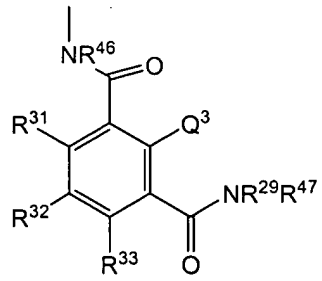
28. (Original) The compound according to claim 27, wherein said ω-carboxyl substituted alkyl group has a structure according to Formula VIII:



(VIII).

29. (Original) The compound according to claim 8, wherein R^1, R^2, R^5, R^6, R^7, R^{10}, R^{29}, R^{46} and R^{47} are H.

30. (Previously presented) The compound according to claim 5, wherein R^4 is an alkyl group substituted with a group having a structure according to Formula II:



(II)

wherein,

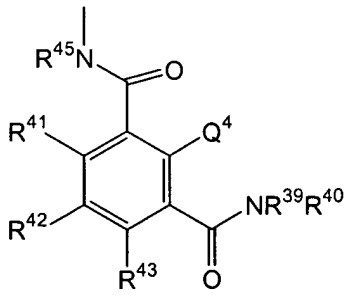
R^{29}, R^{46} and R^{47} are members independently selected from the group consisting of H, alkyl, substituted alkyl, and polyether, wherein, two or more of R^1, R^6 and R^{29} are optionally adjoined by at least one linker moiety to form at least one ring;

R^{31}, R^{32} and R^{33} are members independently selected from alkyl, substituted alkyl, H, —$NR^{24}R^{25}$, —NO_2, —OR^{26}, —$COOR^{27}$,

wherein, R^{24}, R^{25}, R^{26} and R^{27} are members independently selected from the group consisting of H, alkyl and substituted alkyl, wherein R^{32} can optionally form a ring with R^{31}, R^{33} or both, said rings being members independently selected from the group of ring systems consisting of cyclic alkyl, substituted cyclic alkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, and heterocyclyl ring systems; and

Q^3 is —OR^{28}, wherein R^{28} is a member selected from H, an enzymatically labile group, a hydrolytically labile group and a single negative charge; and

R^5 is an alkyl group substituted with a moiety having a structure according to Formula IX:



(IX)

wherein,

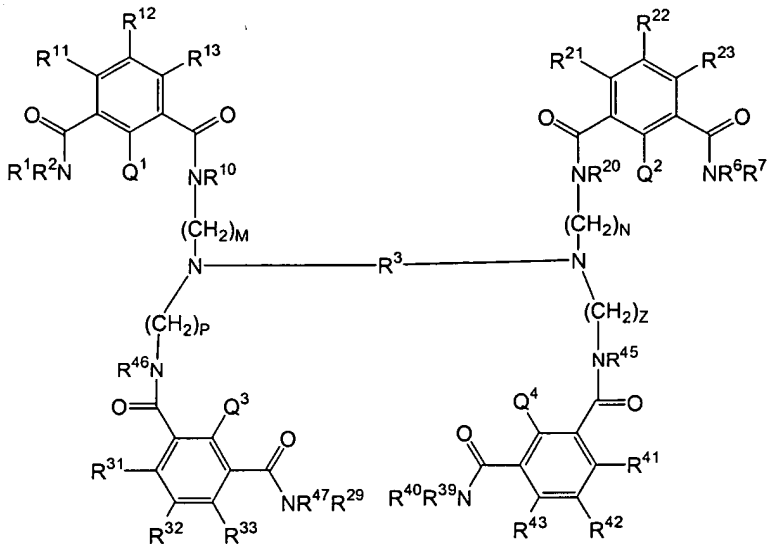
R^{39}, R^{40} and R^{45} are members independently selected from alkyl, substituted alkyl, and polyether, wherein, two or more of R^1, R^6 and R^{39} are optionally adjoined by at least one linker moiety to form at least one ring;

R^{41}, R^{42} and R^{43} are members independently selected from alkyl, substituted alkyl, H, $—NR^{34}R^{35}$, $—NO_2$, $—OR^{36}$, $—COOR^{37}$,

wherein, R^{34}, R^{35}, R^{36} and R^{37} are members independently selected from the group consisting of H, alkyl and substituted alkyl, wherein R^{42} can optionally form a ring with R^{41}, R^{43} or both, said rings being members independently selected from the group of ring systems consisting of cyclic alkyl, substituted cyclic alkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, and heterocyclyl ring systems; and

Q^4 is $—OR^{38}$, respectively, wherein, R^{38} is a member selected from is a member selected from H and a single negative charge.

31. (Original) A compound according to claim 30, having a structure according to Formula X:



(X)

wherein,

M, N, P and Z are members independently selected from the group consisting of the integers between 1 and 5, inclusive.

32. (Original) The compound according to claim 31, wherein, R^1, R^2, R^3, R^5, R^6, R^7, R^8, R^9, R^{10}, R^{20}, R^{29}, R^{39}, R^{40}, R^{45}, R^{46} and R^{47} are members independently selected from the group consisting of C_1 to C_{10} alkyl and C_1 to C_{10} substituted alkyl.

33. (Original) The compound according to claim 32 wherein, R^1, R^2, R^3, R^5, R^6, R^7, R^8, R^9, R^{10}, R^{20}, R^{29}, R^{39}, R^{40}, R^{45}, R^{46} and R^{47} are members independently selected from the group consisting of C_2 to C_6 alkyl and C_2 to C_6 substituted alkyl.

34. (Canceled).

35. (Original) The compound according to claim 31, wherein R^1, R^2, R^3, R^5, R^6, R^7, R^8, R^9, R^{10}, R^{20}, R^{29}, R^{39}, R^{40}, R^{45}, R^{46} and R^{47} are members independently selected from the group consisting of alkyl substituted with polycyclic aryl groups.

36. (Previously presented) The compound according to claim 31, wherein a member selected from the group consisting of R^1, R^2, R^5, R^6, R^7, R^{10}, R^{20}, R^{29}, R^{39}, R^{40}, R^{45}, R^{46} and R^{47} and combinations thereof is a primary alkyl amine.

37. (Previously presented) The compound according to claim 36, wherein said primary alkyl amine is a C_1 to C_{10} alkyl chain bearing an amine moiety at the ω-position.

38. (Original) The compound according to claim 37, wherein said primary alkyl amine as a C_2 to C_6 alkyl chain bearing an amine moiety at the ω-position.

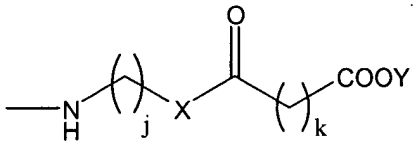
39. (Original) The compound according to claim 31, wherein a member selected from the group consisting of R^1, R^2, R^6, R^7, R^{10}, R^{20}, R^{29}, R^{39}, R^{40}, R^{45}, R^{46} and R^{47} and combinations thereof is a polyether.

40. (Original) The compound according to claim 39, wherein said polyether is a member selected from ethylene glycol, ethylene glycol oligomers and combinations thereof, wherein said polyether has a molecular weight of from about 60 daltons to about 10,000 daltons.

41. (Original) The compound according to claim 39, wherein said polyether has a molecular weight of from about 100 daltons to about 1,000 daltons.

42. (Original) The compound according to claim 31, wherein R^1, R^2, R^6, R^7, R^{10}, R^{20}, R^{29}, R^{39}, R^{40}, R^{45}, R^{46} and R^{47} and combinations thereof are members selected from ω-carboxyl alkyl groups, ω-carboxyl substituted alkyl groups and combinations thereof.

43. (Original) The compound according to claim 42, wherein said ω-carboxyl substituted alkyl group has a structure according to Formula VII:



(VII)

wherein,

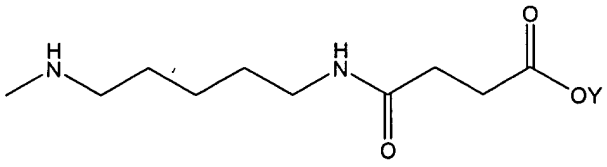
X is a member selected from O, S and NR^{50}, wherein

R^{50} is a member selected from H, alkyl and substituted alkyl;

Y is a member selected from H and a single negative charge; and

j an k are members independently selected from the group consisting of integers from 1 to 18.

44. (Original) The compound according to claim 43, wherein said ω-carboxyl substituted alkyl group has a structure according to Formula VIII:



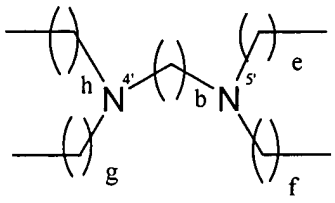
(VIII).

45. (Original) The compound according to claim 31, wherein R^1, R^2, R^6, R^7, R^{10}, R^{20}, R^{29}, R^{39}, R^{40}, R^{45}, R^{46} and R^{47} are H.

46. (Previously presented) A compound according to claim 31, wherein R^3 is $-(CH_2)_2-$.

47. (Canceled)

48. (Previously presented) The compound according to claim 30, wherein R^1, R^6, R^{29} and R^{39} are adjoined by a single linker moiety, wherein said single linker moiety has a structure according to Formula XII:

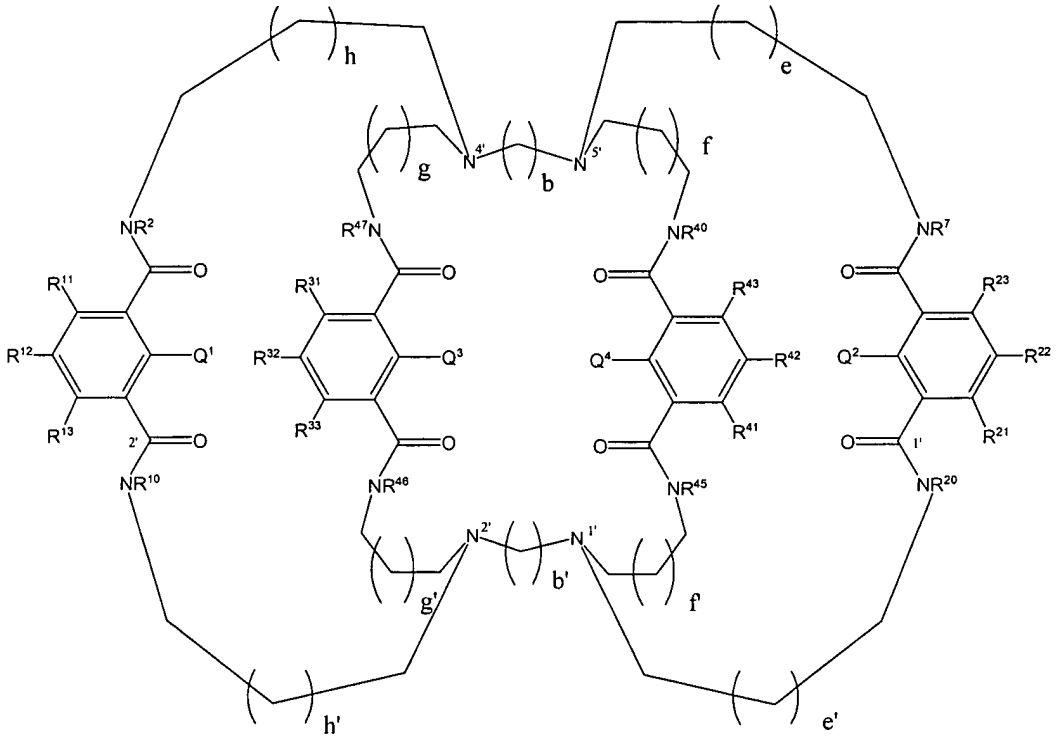


(XII)

wherein,

b, e, f, g and h are members independently selected from the numbers between 1 and 5, inclusive.

49. (Previously presented) A compound according to claim 48, having a structure according to Formula XIII:



(XIII)

wherein,

Q^1, Q^2, Q^3 and Q^4 are OR^{18}, OR^{19}, OR^{28}, OR^{38}, respectively, wherein, R^{18}, R^{19}, R^{28} and R^{38} are members independently selected from H, and a single negative charge;

b and b' are members independently selected from the group consisting of the integers from 1 to 5, inclusive; and

e, e', f, f', g, g', h and h' are members independently selected from the group consisting of numbers from 0 to 3.

50. (Original) The compound according to claim 49 wherein, R^2, R^7, R^{10}, R^{20}, R^{40}, R^{45}, R^{46}, and R^{47} are members independently selected from the group consisting of C_1 to C_{10} alkyl and C_1 to C_{10} substituted alkyl.

51. (Original) The compound according to claim 50 wherein, R^2, R^7, R^{10}, R^{20}, R^{40}, R^{45}, R^{46}, and R^{47} are members independently selected from the group consisting of C_2 to C_6 alkyl and C_2 to C_6 substituted alkyl.

52. (Canceled).

53. (Original) The compound according to claim 52, wherein R^2, R^7, R^{10}, R^{20}, R^{40}, R^{45}, R^{46}, and R^{47} are members independently selected from the group consisting of alkyl substituted with polycyclic aryl groups.

54. (Original) The compound according to claim 49, wherein a member selected from the group consisting of R^2, R^7, R^{10}, R^{20}, R^{40}, R^{45}, R^{46}, and R^{47} and combinations thereof is a primary alkyl amine.

55. (Original) The compound according to claim 54, wherein said primary alkyl amine as a C_1 to C_{10} alkyl chain bearing an amine moiety at the ω-position.

56. (Original) The compound according to claim 55, wherein said primary alkyl amine as a C_2 to C_6 alkyl chain bearing an amine moiety at the ω-position.

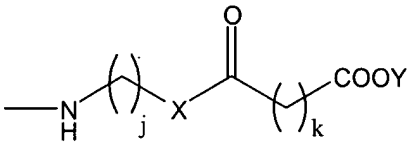
57. (Original) The compound according to claim 49, wherein a member selected from the group consisting of R^2, R^7, R^{10}, R^{20}, R^{40}, R^{45}, R^{46}, and R^{47} and combinations thereof is a polyether.

58. (Original) The compound according to claim 57, wherein said polyether is a member selected from ethylene glycol, ethylene glycol oligomers and combinations thereof, wherein said polyether has a molecular weight of from about 60 daltons to about 10,000 daltons.

59. (Original) The compound according to claim 58, wherein said polyether has a molecular weight of from about 100 daltons to about 1,000 daltons.

60. (Original) The compound according to claim 49, wherein R^2, R^7, R^{10}, R^{20}, R^{40}, R^{45}, R^{46}, and R^{47} and combinations thereof are members selected from ω-carboxyl alkyl groups, ω-carboxyl substituted alkyl groups and combinations thereof.

61. (Previously presented) The compound according to claim 60, wherein said ω-carboxyl substituted alkyl group has a structure according to Formula VII:



(VII)

wherein,

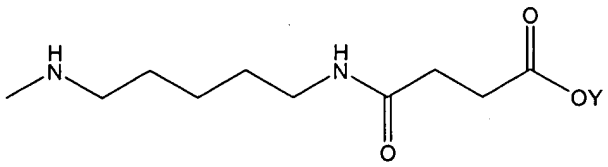
X is a member selected from O, S and NR^{50}, wherein

R^{50} is a member selected from H, alkyl and substituted alkyl;

Y is a member selected from H and a single negative charge; and

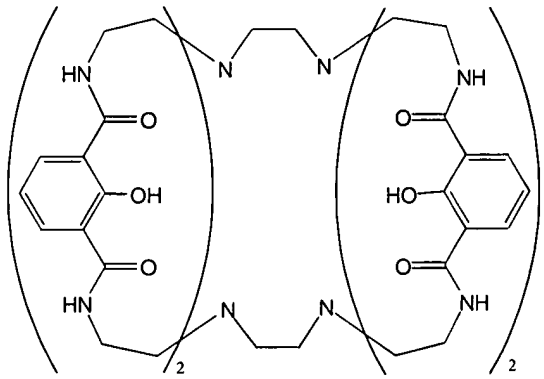
j ~~an~~ and k are members independently selected from the group consisting of integers from 1 to 18.

62. (Original) The compound according to claim 61, wherein said ω-carboxyl substituted alkyl group has a structure according to Formula VIII:



(VIII).

63. (Previously presented) The compound according to claim 49, having a structure according to Formula XIV:



(XIV).

64-123. (Canceled)

124. (New) The compound according to claim 5, wherein said compound is covalently attached to a member selected from the group consisting of antibodies, antigens, peptides, nucleic acids, enzymes, haptens, carbohydrates and pharmacologically active agents.

125. (New) A complex formed between a metal ion and the compound according to claim 5, wherein said metal ion is an ion of the lanthanide series.

126. (New) The complex according to claim 125, wherein said complex emits luminescence.

127. (New) The complex according to claim 126, wherein said luminescence is circularly polarized luminescence.

128. (New) The complex according to claim 127, wherein said luminescence is produced by electrochemical excitation of said complex.

129. (New) The complex according to claim 125, wherein said lanthanide ion is a member selected from the group consisting of terbium, samarium, europium, dysprosium and neodymium.

130. (New) The complex according to claim 125, wherein said complex comprises a component of a substrate for the transmission and amplification of light.

131. (New) The complex according to claim 125, wherein said substrate comprises a member selected from glass, organic polymers, inorganic polymers and combinations thereof.

132. (New) A method for determining whether a sample contains an enzyme, said method comprising:

(a) contacting said sample with a peptide construct comprising

i) a complex according to claim 125;

ii) a quencher of light energy having an absorbance band overlapping an emission band of said complex; and

iii) a cleavage recognition site for said enzyme,

wherein said peptide is in a conformation allowing fluorescence energy transfer between said complex and said quencher when said complex is excited;

(b) exciting said complex; and

(c) determining a fluorescence property of said sample, wherein the presence of said enzyme in said sample results in a change in said fluorescence property.

133. (New) A method for determining whether a compound alters an activity of an enzyme, said method comprising:

(a) contacting a sample comprising said enzyme and said compound with a peptide construct comprising

i) a complex according to claim 125;

ii) a quencher of light energy having an absorbance band overlapping an emission band of said complex; and

iii) a cleavage recognition site for said enzyme,

wherein said peptide is in a conformation allowing fluorescence energy transfer between said complex and said quencher when said complex is excited;

(b) exciting said complex; and

(c) determining a fluorescence property of said sample, wherein said activity of said enzyme in said sample results in a change in said fluorescence property.

134. (New) A method for detecting a nucleic acid target sequence, said method comprising:

(a) contacting said target sequence with a detector oligonucleotide comprising a single-stranded target binding sequence, said detector oligonucleotide having linked thereto,

i) a complex according to claim 125;

ii) a quencher of light energy having an absorbance band overlapping an emission band of said complex,

wherein said detector nucleic acid is in a conformation allowing fluorescence energy transfer between said complex and said quencher when said complex is excited;

(b) hybridizing said target binding sequence to said target sequence, thereby altering said conformation of said detector oligonucleotide, causing a change in a fluorescence parameter; and

(c) detecting said change in said fluorescence parameter, thereby detecting said nucleic acid target sequence.

135. (New) A method for detecting the presence of a nucleic acid target sequence, said method comprising:

(a) hybridizing to said target sequence a detector oligonucleotide comprising a single-stranded target binding sequence and an intramolecularly associated secondary structure 5' to said target binding sequence, wherein at least a portion of the target sequence forms a single stranded tail which is available for hybridization to said target sequence, said detector oligonucleotide having linked thereto,

i) a complex according to claim 125;

ii) a quencher of light energy having an absorbance band overlapping an emission band of said complex,

wherein said detector nucleic acid is in a conformation allowing fluorescence energy transfer between said complex and said quencher when said complex is excited;

(b) in a primer extension reaction, synthesizing a complementary strand using said intramolecularly associated secondary structure as a template, thereby dissociating said intramolecularly associated secondary structure and producing a change in a fluorescence parameter;

(c) detecting said change in said fluorescence parameter, thereby detecting said nucleic acid target sequence.

136. (New) A method for detecting amplification of a target sequence comprising, in an amplification reaction:

(a) hybridizing to said target sequence a detector oligonucleotide comprising a single-stranded target binding sequence and an intramolecularly associated secondary structure 5' to said target binding sequence, wherein at least a portion of said target sequence forms a single stranded tail which is available for hybridization to said target sequence, said detector oligonucleotide having linked thereto,

i) a complex according to claim 125;

ii) a quencher of light energy having an absorbance band overlapping an emission band of said complex,

wherein said detector nucleic acid is in a conformation allowing fluorescence energy transfer between said complex and said quencher when said complex is excited;

(b) extending said hybridized detector oligonucleotide on said target sequence with a polymerase to produce a detector oligonucleotide extension product and separating said detector oligonucleotide extension product from said target sequence;

(c) hybridizing a primer to said detector oligonucleotide extension product and extending the primer with said polymerase, thereby linearizing said intramolecularly associated secondary structure and producing a change in a fluorescence parameter; and

(d) detecting said change in said fluorescence parameter, thereby detecting said target sequence.

137. (New) A method of ascertaining whether a first nucleic acid and a second nucleic acid hybridize, said first nucleic acid comprising a complex according to claim 125, said method comprising:

(a) contacting said first nucleic acid with said second nucleic acid;

(b) detecting an alteration in a fluorescent property of a member selected from said first nucleic acid, said second nucleic acid and a combination thereof, thereby ascertaining whether said hybridization occurs.